

selves possess, and upon such an absurd assumption build up a theory, we shall hopelessly grope for real light on the problems of Nature.

XVIII.—*Description of a new Genus and Species of Rhynchophorous Coleoptera.* By D. SHARP.

IN the summer of 1890, I received from Mr. Bartlett-Calvert, of Santiago, some specimens of a handsome weevil that he and Dr. Philippi thought would probably be new. It was accompanied by the following information:—"The weevils were found by me last year on the Pichi Nitrou Cordillera of Araucania, living on the *Araucaria imbricata*. The weevil lives in the body of the *Araucaria*, which it appears to mine in all directions, the pupa being buried in the rotten débris and frass; it lives at the height of 2300 metres, and I found it on nearly all the old trees, but never more than four or six specimens on each, and always in pairs, these being embedded in the crevices formed by the scab-like bark of the tree; some were feeding on the odorous resin which exudes from the lacerated trunk. The imago was found in the months of January and February." The larva and pupa were also found by Mr. Bartlett-Calvert and transmitted to me, but arrived in a state of complete disintegration.

On examining the insect thus alluded to, I was much interested to find that it is very closely allied to our genus *Hylobius*; a genus attached, so far as I know, exclusively to Coniferæ, and extending throughout the northern hemisphere, but apparently most numerous in species in E. Siberia, N. China, and Japan. Mr. Calvert's genus, which I propose to call *Calvertius*, is almost equally closely allied to the genus *Heilipus*, which in Tropical America is extremely numerous in species, some hundreds having been already described. Lacordaire considers *Heilipus* to be a composite genus, and it is therefore, without a knowledge of all its species, not quite legitimate to infer that some of them may not prove to be congeneric with *Calvertius*; but, so far as I can ascertain, this is not the case, and Mr. Pascoe, who has given more attention than any other entomologist to the big S. American genus, has been kind enough to inform me that he does not know any species of it to which *Calvertius* is specially allied.

CALVERTIUS, gen. nov. (*Hylobiides*, Lac.).

Rostrum cylindricum, modice elongatum; antennæ maris fere ad apicem, feminae bene ante medium, insertæ; scapo elongato, octavo irregulari, ab articulo vix abrupte discreta. Scrobes latae, laterales, antierius superne visibiles, posterius superne occultæ. Oculi sat magni, transversi, subtus paulo angustiores. Tibiæ anteriores subcompressæ, intus minute serratæ vel tuberculatæ, ad apicem extus unco curvato armatæ. Metasternum modice elongatum. Coxæ anteriores parum prominulæ, contiguæ; prosternum antierius minus profunde emarginatum. Coxæ intermediæ distantibus. Femora omnia haud clavata, fere simplices, subtus tuberculo minuto munita.

This insect is systematically closely allied to *Hylobius*, though differing in numerous details of minor importance; the rostrum, however, is more elongate and cylindrical, the antennæ are differently inserted in the two sexes, the femora are more linear, and the uncus of the front tibia is placed at the outer angle and is not directed abruptly inwards. In the form of the rostrum and front tibiæ *Calvertius* agrees better with *Heilipus*, but from all the forms of that great but composite genus it may be distinguished by the sublinear minutely tuberculate femora, and by the insertion of the antennæ being different in the two sexes.

Calvertius araucarie, sp. n.

Suboblongus, nodulosus, rufo-niger, antennis nigris; thorace inæquali, lateribus plus minusve lobato-dilatatis; elytris tuberculis rufis fere in seriebus obliquis dispositis.

Long. absque rostro 15-18 millim.

Hab. Chili; in *Araucariam imbricatam*; cujus lignum annosum larva destruit.

Rostrum 4 or 5 millim. long, cylindrical, dull, much punctured, of a piceous colour; antennæ inserted in the male very near the tip, in the female about one third of the length behind it; eyes above rather widely separated, with a small deep canaliculiform fovea between them. Thorax with the surface very uneven, constricted near the front, and on each side expanded; there is a broad, vague, longitudinal impression along the middle near the base, this becomes furcate about the middle, and on the middle of the front there is another vague depression; the elevated parts are irregularly sculptured, almost as if corroded. The elytra are rather

oblong in form, with the shoulders almost rectangular; their surface bears numerous large, pale red nodules, with smaller asperities and irregularly arranged small depressions between them. The legs are obscure red, the tarsi blackish red.

Cambridge,
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MISCELLANEOUS.

Phosphorescent Centipedes.

THAT there are luminous Myriopods has been known for many years, as also the fact that they occur only among the family Geophilidæ of the Chilopod Myriopoda. Both sexes are luminous, sometimes quite intensely so, and the luminosity spreads out over the whole ventral surface of the animal. If one of these Geophilids is taken up the luminous matter communicates to the hand of the observer or to anything else with which the specimen comes into contact.

There is considerable dispute regarding the origin of this phosphorescent matter. According to Dr. R. Dubois it is contained in the epithelial cell of the digestive tube, and the emission of the light depends on the moulting of the digestive tube. Mr. Macé, on the contrary, contends that the luminous matter is a glandular excretion, and that these glands (*glandes préanales*) are situated on the last two segments of the animal. Mr. J. Gazagnaire has satisfied himself that the luminous matter is secreted from glands situated on the sternal and episternal plates. Upon pressure these glands secrete a yellowish viscous substance, having a peculiar odour, and which is highly phosphorescent.

In a more recent article (*Mém. de la Soc. Zool. de France*, t. iii. 1890, pp. 136-146) Mr. Gazagnaire reviews all previous observations on luminous Geophilids, and finds that, so far as the European fauna is concerned, luminous specimens were found only between the end of September and beginning of November. The luminosity appears, therefore, only at a certain epoch in the life-history of these Myriopods. Further, in all more carefully recorded cases luminous specimens were never found singly, but always in pairs or in companies of three or more specimens. The few and fragmentary observations that have hitherto been made on the mode of reproduction in these animals seem to prove that the fecundation of the female takes place in autumn, or just at the time when the luminous specimens are found; and Mr. Gazagnaire is thus fully justified in connecting the appearance of luminosity with the excitement caused by sexual instinct.

In Algiers, Mr. Gazagnaire observed luminous specimens of *Orya barbarica* in the month of April; and he concludes that in other countries and in consequence of altered climatic conditions the period of luminosity probably differs from that observed in Europe.—*Insect Life*, vol. iii. no. 4, p. 173.